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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,903	11/21/2003	John Santhoff	30287-15	4045

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CARLSBAD, CA 92008

EXAMINER

VO, NGUYEN THANH

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,903

Applicant(s)

SANTHOFF ET AL.

Examiner

Nguyen T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 26-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Specie I, claims 1-25, in the reply filed on 06/16/2005 is acknowledged. The traversal is on the ground(s) that the examiner will not be seriously burdened because a search for Specie I may likely uncover references related to the subject matter of Species II and III. This is not found persuasive because the restriction requirement is made **before** the examiner actually conducts the search; therefore the existence of references related to all Species I, II and III has nothing to do with whether the restriction requirement is proper. In addition, the present application has total 48 claims which are divided to three patentably distinct Species. That clearly show a serous burden on the examiner. Accordingly, the requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (6,360,075, cited by examiner) in view of Izadpanah (6,515,622, cited by examiner).

As to claim 1, Fischer discloses a communication system in figure 1 comprising a receiver structured to receive a substantially continuous sine wave carrier signal (see the receiver 130 in figure 2), the signal modulated to contain communication data; a demodulator 132 communicating with the receiver, the demodulator structured to demodulate the communication data from the substantially continuous sine wave carrier signal; and a transmitter 134 coupled to the demodulator, the transmitter structured to transmit signals including the communication data. See Fischer, column 3 lines 40-44; column 5 line 10 to column 6 line 37; column 12 lines 38-42. Fischer thus discloses all the claimed limitations except transmitting a plurality of electromagnetic pulses as recited in the claim. Izadpanah discloses converting continuous sine wave carrier signals (see numeral 110) to a plurality of electromagnetic pulses (see numeral 150), and transmitting the plurality of electromagnetic pulses to another station (see figure 1; column 4 line 10 to column 5 line 29). In addition, Fischer suggests that different modulation techniques can be used in his system (see column 12 lines 38-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Izadpanah to Fischer, because the ultra

wideband pulse system has advantages such as lowered probability of intercept of transmission, reduced multipath fading and radio frequency interference problems (as suggested by Izadpanah at column 1 lines 11-18).

As to claims 2, 4, 25, see Fischer, column 5 lines 10-20; column 12 lines 38-42.

As to claim 3, see Fischer, column 5 lines 10-20.

As to claims 5-8, 19, the combination of Fischer and Izadpanah fails to expressly disclose various modulation/demodulation techniques as recited in the claims. Those skilled in the art, however, would have recognized that the above differences would not render the claims patentable over the applied references for at least two reasons. First, Fischer suggests that different modulation techniques can be used in his system (see column 12 lines 38-42). Second, the examiner takes Official Notice that the recited various modulation/demodulation techniques are known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the above conventional modulation/demodulation techniques in the combination of Fischer and Izadpanah, so that the repeater 16 in Fischer could link plural systems together.

As to claims 9-10, 12-13, see the wireless medium in figure 1 of Fischer.

As to claims 11, 14, the combination of Fischer and Izadpanah fails to expressly disclose various wired transmission mediums as recited in the claims. Those skilled in the art, however, would have recognized that the above differences would not render the claims patentable over the applied references for at least two reasons. First, the claimed limitation would merely depend on what kind of wired transmission medium one

would like to use in his system. Second, the examiner takes Official Notice that the recited various wired transmission mediums are known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the above conventional wired transmission mediums in the combination of Fischer and Izadpanah, in order to improve the quality of signal transmission and reception.

As to claim 15, the combination of Fischer and Izadpanah discloses the claimed limitations (see Izadpanah, column 1 lines 11-21; column 4 lines 42-46).

As to claim 16, the combination of Fischer and Izadpanah discloses the claimed limitations (see Izadpanah, column 7 lines 35-38).

As to claims 17-18, 20, 23-24, the combination of Fischer and Izadpanah discloses the claimed limitations (see Izadpanah, column 1 lines 11-21; column 4 lines 42-46; figure 3B).

As to claim 21, the combination of Fischer and Izadpanah discloses the claimed limitations (see Fischer, column 3 lines 26-28).

As to claim 22, the combination of Fischer and Izadpanah discloses the claimed limitations (see Fischer, figure 6, legend "priority").

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-47 of copending Application No. 10/723,562. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are related to receiving a substantially continuous sine wave carrier signal; demodulating the communication data from the substantially continuous sine wave carrier signal; and transmitting signals including communication data.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Graham (5,351,270); Salokannel (EP 1 515 473 A2) disclose converting received signal from a first format to a second format.

McCorkle (6,505,032) discloses ultra wideband communication system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen Vo

Nguyen Vo
7-28-2005

**NGUYENT.VO
PRIMARY EXAMINER**